

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): Metal oxide-based phosphor microfine particles, comprising:

a matrix crystal made of a metal oxide and a metal element doped as an emission center into the matrix crystal;

wherein:

said-the microfine particles are provided with an organic group coordinated to a surface thereof;

the microfine particles have an average particle size of from 1 to 100 nm; and

the microfine particles are configured to receive emitted light from a light source in a device, the light source being selected from the group consisting of organic electroluminescent devices, inorganic electroluminescent devices, light-emitting diodes, cold cathode tubes, fluorescent tubes and lasers.

Claim 2 (Original): The metal oxide-based phosphor microfine particles according to claim 1, wherein said organic group is a residue of an organic compound having one or more functional groups bonded to a terminal end or a side chain thereof which residue is formed by dissociating at least one of the functional groups from the organic compound.

Claim 3 (Original): The metal oxide-based phosphor microfine particles according to claim 2, wherein said functional groups are OH groups.

Claim 4 (Original): The metal oxide-based phosphor microfine particles according to claim 1, wherein said metal element as the emission center is a rare earth element.

Claim 5 (Original): The metal oxide-based phosphor microfine particles according to claim 4, wherein said rare earth element is at least one element selected from the group consisting of europium (Eu), terbium (Tb), praseodymium (Pr), cerium (Ce), samarium (Sm), thulium (Tm), dysprosium (Dy) and lutetium (Lu).

Claim 6 (Original): The metal oxide-based phosphor microfine particles according to claim 1, wherein a metal element contained in the metal oxide constituting the matrix crystal is at least one element selected from the group consisting of yttrium (Y), aluminum (Al), gadolinium (Gd), lanthanum (La), gallium (Ga) and barium (Ba), and the metal element as the emission center is at least one element selected from the group consisting of europium (Eu), cerium (Ce) and terbium (Tb).

Claim 7 (Withdrawn): A dispersion of metal oxide-based phosphor microfine particles comprising:

- (a) a dispersing medium containing an organic compound having one or more functional groups bonded to a terminal end or a side chain thereof; and
- (b) the metal oxide-based phosphor microfine particles comprising a matrix crystal made of a metal oxide and a metal element doped as an emission center into the matrix crystal, wherein said microfine particles are provided with an organic group coordinated to a surface thereof which is formed by dissociating at least one of the functional groups from the organic compound.

Claim 8 (Withdrawn): The dispersion of metal oxide-based phosphor microfine particles according to claim 7, wherein said functional groups are OH groups.

Claim 9 (Withdrawn): The dispersion of metal oxide-based phosphor microfine particles according to claim 7, further comprising (c) a resin component.

Claim 10 (Withdrawn): The dispersion of metal oxide-based phosphor microfine particles according to claim 9, wherein said resin component is a light-transmittable resin.

Claim 11 (Withdrawn): A fluorescent conversion film comprising a light-transmittable resin and the metal oxide-based phosphor microfine particles as defined in any one of claims 1 to 6 which are dispersed in the light-transmittable resin.

Claim 12 (Withdrawn): A process for producing metal oxide-based phosphor microfine particles, comprising:

dissolving or dispersing a compound of a metal element forming a matrix made of a metal oxide and a compound of a metal element as an emission center in a dispersing medium containing an organic compound having one or more functional groups bonded to a terminal end or a side chain thereof to prepare a solution;

enclosing the solution in a pressure container; and

heating the solution at a temperature not lower than a boiling point of the organic compound.

Claim 13 (Withdrawn): The process for producing metal oxide-based phosphor microfine particles according to claim 12, wherein said functional groups are OH groups.

Claim 14 (Withdrawn): The process for producing metal oxide-based phosphor microfine particles according to claim 12, wherein said compound of the metal element forming the matrix made of the metal oxide and said compound of the metal element as the emission center are respectively at least one compound selected from the group consisting of carbonates, acetates, nitrates, hydroxides, sulfates, phosphates, borates, silicates, aluminates, carboxylates, halides, alkoxides and hydrates of these compounds.

Claim 15 (Withdrawn): A method of separating metal oxide-based phosphor microfine particles comprising:

subjecting a mixture of the metal oxide-based phosphor microfine particles and a solvent to centrifugal separation, filtration, natural sedimentation or combination thereof for classifying the microfine particles to separate transparent metal oxide-based phosphor microfine particles containing the solvent from the mixture.

Claim 16 (Withdrawn): A method of separating metal oxide-based phosphor microfine particles comprising:

mixing a mixture of the metal oxide-based phosphor microfine particles and a solvent, with a solvent capable of varying a dispersing condition of the microfine particles, and subjecting the resultant mixture to centrifugal separation, filtration, natural sedimentation or combination thereof for classifying the microfine particles to separate transparent metal oxide-based phosphor microfine particles containing the solvent from the mixture.

Claim 17 (Withdrawn): A transparent fluorescent liquid comprising a solvent and 10% by weight or more of the metal oxide-based phosphor microfine particles as defined in

claim 1, wherein light emitted from the metal oxide-based phosphor microfine particles which has a wavelength attributed to the metal oxide contained therein is transmitted through the fluorescent liquid at a transmittance of 50% or more in terms of an optical path length of 1 cm.

Claim 18 (Withdrawn): A transparent fluorescent paste comprising a solvent and 50% by weight or more of the metal oxide-based phosphor microfine particles as defined in claim 1, wherein light emitted from the metal oxide-based phosphor microfine particles which has a wavelength attributed to the metal oxide contained therein is transmitted through the fluorescent paste at a transmittance of 50% or more in terms of an optical path length of 150 μm .

Claim 19 (Withdrawn): A phosphor produced by baking the fluorescent liquid as defined in claim 17 at a temperature of 500°C or lower.

Claim 20 (Withdrawn): A phosphor produced by baking the fluorescent paste as defined in claim 18 at a temperature of 500°C or lower.

Claim 21 (Withdrawn): A process for producing a phosphor comprising: baking the fluorescent liquid as defined in claim 17 at a temperature of 500°C or lower.

Claim 22 (Withdrawn): A process for producing a phosphor comprising: baking the fluorescent paste as defined in claim 18 at a temperature of 500°C or higher.

Claim 23 (Withdrawn): A fluorescent converter comprising the phosphor as defined in claim 17 or 18 solely, or a product obtained by adding a resin and/or a solvent to the phosphor and solidifying the obtained mixture.

Claim 24 (Withdrawn): A fluorescent converter obtained by dispersing the phosphor as defined in claim 17 or 18 in a resin and/or a solvent.